UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,010	12/26/2001	Geping Chen	10360-089001 / 14619BA	2460

7590 03/14/2005	EXAMINER
DENIS G. MALONEY	PEARSON, YVETTE B
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ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 03/14/2005

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Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td></td></tr>
<tr><td>10/036,010</td><td>CHEN, GEPING</td><td></td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Yvette Pearson</td><td>2144</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 December 2001</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 - 20</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 - 20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>February 11, 2002</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 - 20 are presented for examination in the application.

2.   Acknowledgment is made of provisional Application No. 60/295,601 filed on June

4, 2001.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1 - 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasue

et al (US 5,797,041).

4.   As per Claim 1, Yasue teaches a communication control system to accommodate

two different data structures when porting a protocol stack ([protocol buffer,

communications buffer] Column 2, Lines 42 – 55) comprising:

    a). providing entries in a driver buffer to mimic a buffer of ported protocol stack

    ([a receiving queue similar to structure in transmitting queue] Column 9, Lines 11

    – 22; Figure 8), and

    b). providing entries in the buffer structure of the ported protocol stack ([shared

    buffer] Column 7, Lines 46 – 55.)

5.   As per Claims 2 and 3, Yasue teaches a communication control system as disclosed above, further comprising the method of providing a flag entry to a data block of the driver buffer ([Control Flag - DIR] Column 8, Lines 64 – 67; Figure 8, #300) wherein the flag entry identifies the buffer generated in the driver and outside the protocol stack ([the control flag indicates whether the communication buffer {driver} or the protocol program manages the data in the respective buffer areas] Column 9, Lines 60 – 67; Column 10, Lines 1 – 9; Figure 1, #2.)

6.   As per Claims 4 and 5, Yasue teaches a communication control system as disclosed above in Claim 1, further comprising adding a pointer-to-header entry to the driver buffer ([ADR represents the head address of a buffer] Column 8, Lines 56 – 63; Figures 7 and 8,   #300; Figures 17 and 18) wherein the pointer-to-header entry determines an appropriate freeing routing ([Interrupt Control Modules] Column 12, Lines 1 – 17; Figure 16, #213 and #211.)

7.   As per Claim 6, Yasue teaches a communication control system as disclosed above in Claim 1 wherein providing entries in the buffer structure of the ported protocol stack (shared buffer) comprise appending a flag entry to the protocol stack ([the structure of the shared buffer includes a protocol buffer descriptor, whereby the control flag is stored in buffer descriptor] Column 3, Lines 22 – 29.)

8.   As per Claim 7, Yasue teaches a communication control system as disclosed above in Claim 1 wherein providing entries in the buffer structure of the ported protocol stack (shared-buffer) comprises appending a pointer-to-header entry to a data block of the ported stack (Column 6, Lines 24 – 27; Figure 13, # 218 and #222.)

9.   As per Claims 8, 9 and 10, Yasue teaches a communication control system as

disclosed above in Claim 1 wherein providing entries in the driver packet data structure

(communication buffer) further comprises appending data of the ported protocol stack to

the driver ([protocol buffer] Column 8, Lines 15 – 22; Figures 7 and 8) to have the same

pointers as in a message block to store information necessary to gain access to the

data buffer ([Buffer Descriptors] Column 8, Lines 23 – 25, Figure 7, #300 and #410); to

have the same entries as in a data block for a data storage area ([data buffer] Figure 7,

#420); and to have the same data as in an actual data buffer (Column 9, Lines 15 – 22.)

10.   As per Claim 11, Yasue teaches a communication apparatus (Column 2, Lines

36 – 41) comprising:

        a).   a memory that stores executable instructions (protocol program) for

        accommodating two different data structures when porting a protocol stack

        ([protocol buffer, communications buffer] Column 2, Lines 42 – 55);

        b).   a processor that utilizes a communication protocol program ([System

        Processor] Column 5, Lines 18 – 23; Figure 1, #1) to provide entries in a driver

        buffer to mimic a buffer of a ported protocol stack ([a receiving queue similar to

        structure in transmitting queue] Column 9, Lines 11 – 22; Figure 8) and

        c).   providing entries in the buffer structure of the ported protocol stack ([shared

        buffer] Column 7, Lines 46 – 55.)

11.   As per Claims 12 and 13, Yasue teaches a communication apparatus as

disclosed above in Claim 11, further comprising a flag entry to a data block of the driver

buffer ([Control Flag - DIR] Column 8, Lines 64 – 67; Figure 8, #300) wherein the flag

entry identifies the buffer generated in the driver and outside the protocol stack ([the

control flag indicates whether the communication buffer {driver} or the protocol program

manages the data in the respective buffer areas] Column 9, Lines 60 – 67; Column 10,

Lines 1 – 9; Figure 1, #2.)

12.   As per Claims 14 and 15, Yasue teaches a communication apparatus as

disclosed above in Claim 11, further comprising adding a pointer-to-header entry to the

driver buffer ([ADR represents the head address of a buffer] Column 8, Lines 56 – 63;

Figures 7 and 8,   #300; Figures17 and 18) wherein the pointer-to-header entry

determines an appropriate freeing routing ([Interrupt Control Module] Column 12, Lines

1 – 17; Figure 16, #213.)

13.   As per Claim 16, Yasue teaches a communication article comprising a machine-

readable medium that stores executable instructions ([software for processing a

communication protocol] Column 2, Lines 36 – 41) for accommodating two different

data structures when porting a protocol stack ([protocol buffer, communications buffer]

Column 2, Lines 42 – 55) such that the instructions cause a machine to:

a). provide entries in a driver buffer to mimic a buffer of ported protocol stack ([a

receiving queue similar to structure in transmitting queue] Column 9, Lines 11 –

22; Figure 8); and

b). providing entries in the buffer structure of the ported protocol stack ([shared

buffer] Column 7, Lines 46 – 55.)

14.   As per Claims 17 and 18, Yasue teaches a communication article as disclosed

above in Claim 16, further comprising a flag entry to a data block of the driver buffer

([Control Flag - DIR] Column 8, Lines 64 – 67; Figure 8, #300) wherein the flag entry

identifies the buffer generated in the driver and outside the protocol stack ([the control

flag indicates whether the communication buffer {driver} or the protocol program

manages the data in the respective buffer areas] Column 9, Lines 60 – 67; Column 10,

Lines 1 – 9; Figure 1, #2.)

15.   As per Claims 19 and 20, Yasue teaches a communication article as disclosed

above in Claim 16, further comprising adding a pointer-to-header entry to the driver

buffer ([ADR represents the head address of a buffer] Column 8, Lines 56 – 63; Figures

7 and 8, #300; Figures17 and 18) wherein the pointer-to-header entry determines an

appropriate freeing routing ([Interrupt Control Module] Column 12, Lines 1 – 17; Figure

16, #213.)

16.   Thus, Yasue discloses all limitations of the rejected claims; therefore Yasue

anticipates the subject matter of Claims 1 - 20.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

18.   US 6,034,963, (Minami et al) discloses multiple network protocols that process

header information from network packets while requiring no intermediate memory.

19.   US 5,265,239, (Ardolino) discloses a method to access local processing systems that support multiple protocol stacks and multiple hardware devices to create a virtual communication path with external processing systems.

20.   US 4,975,829, (Clarey et al) discloses a computer system that utilizes a communication interface protocol that supports a flexible driver design.

21.   US 5,797,041, (Yasue et al) discloses a communication control system for implementing a high-speed data transmitting and receiving process using a communication protocol program.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette Pearson whose telephone number is 571 272-4227. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Cuchlinski can be reached on 571 272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yvette Pearson

Examiner

Art Unit 2144

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